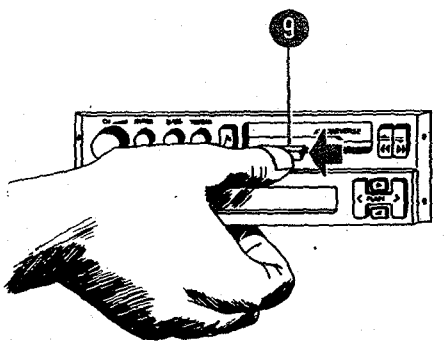
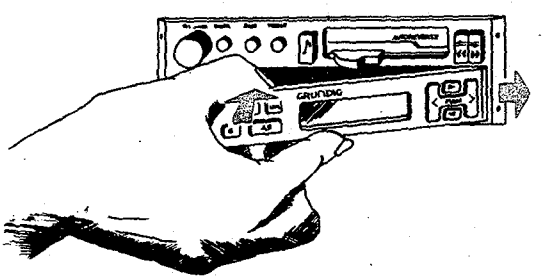
CAR AUDIO

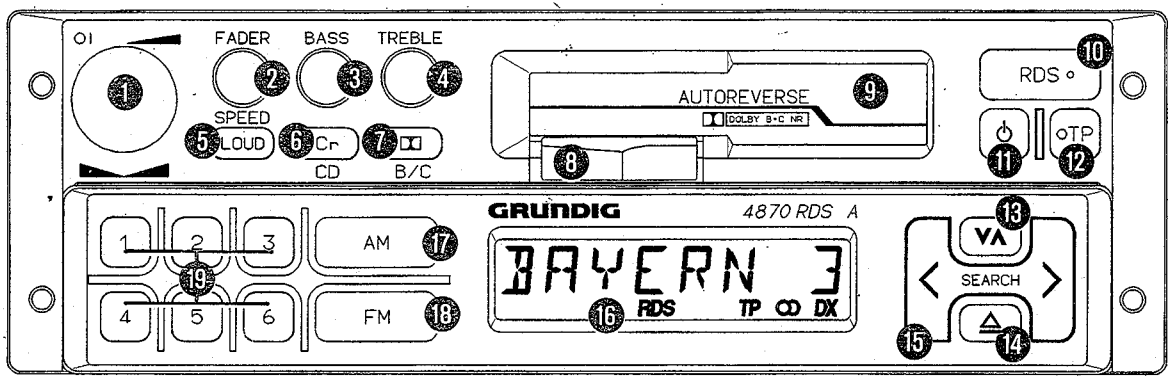
WKC 4870 RDS A

GRUNDIG

English 76






FADER
BASS
TREBLE
SPEED
LOUD
CD
B/C
AUTOREVERSE
DOLBY B+C NR
RDS
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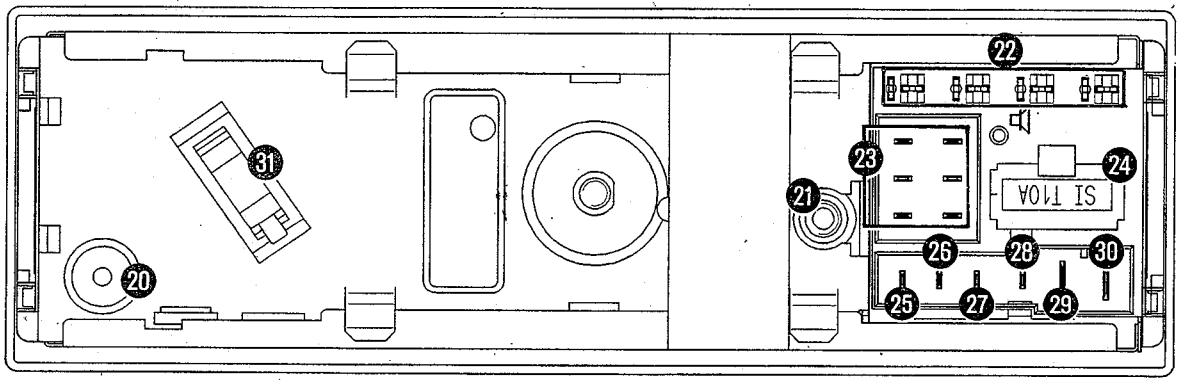
GRUNDIG
4870 RDS A
BAYERN 3
RDS
TP
DX
AM
FM
SEARCH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Your car radio at a glance

① **Multifunction control**
- Switching on/off: press
- Volume: softer ∩ louder
- Balance: pull out control and turn: right softer ∩ left softer

② **FADER/SPEED control** (retractable)
- **FADER**
  Varies the relative volumes:
  Front loudspeakers softer ∩ rear loudspeakers softer
- **SPEED** (SCV) control
  Adjusts the speed-controlled volume; see "Adjusting the SCV".

③ **BASS control** (retractable)

④ **TREBLE control**(retractable)

⑤ **LOUD button**
- Button locked in: improves the sound impression at low volume.
- On **SCV** operation, the button should also be locked in.

⑥ **Tape type (Cr/CD) button**
- Functions as tape type button on cassette operation: switches between Me, Cr and FeCr tape (Cr shown in display ⑯) and Fe tape.
- Functions as CD button on radio operation: switches between CD playback (CD shown in display ⑯) and radio operation.

⑦ **DOLBY NR (DD B/C)** (stepping button)
- For switching from Dolby NR OFF → Dolby B NR → Dolby C NR → Dolby NR OFF, etc.

⑧ **Lock** for removable operating section

⑨ **Cassette compartment**
- Insert the cassette with the open edge to the right. The unit is switched to cassette operation.

⑩ **RDS button** with illuminated indicator (Radio-Data System)
- Press briefly:
  You receive specifically "VHF stations with RDS";
  display ⑯ shows RDS.
- Press for more than 2 seconds:
  The RDS-LEARN memory will be allocated;
  you will hear the strongest "VHF station with RDS".

⑪ **Standby button (⏻)**
- Press during cassette or CD operation:
  The unit switches for approx. 3 seconds to radio operation.

⑫ **TP button** with illuminated indicator (Traffic Programme/RDS traffic news radio)
- Press briefly:
  You receive specifically " VHF Trafic Programmes with RDS traffic news broadcasts"; display ⑯ shows RDS TP. Reception will only be possible in countries with RDS traffic news radio.
- Press for more than 2 seconds:
  The RDS-LEARN memory will be allocated; you will hear the strongest "VHF Traffic Programme with RDS traffic news broadcasts".

⑬ **Manual tuning/tape reversal button** (∨∧)
- on radio operation:
  Manual station tuning – upwards in frequency (not possible in the RDS and TP range).
  For selecting stations in the RDS-LEARN memory in the forward direction.
- on cassette operation:
  Changing the cassette side.

⑭ **Manual tuning/eject button** (⏏)
- on radio operation:
  Manual station tuning – downwards in frequency (not possible in the RDS and TP range).
  For selecting stations in the RDS-LEARN memory in the reverse direction.
- on cassette operation:
  Terminates cassette operation, ejects cassette and switches unit to radio operation.

⑮ **Station search/fast wind rocker button (❮ ❯)**
- on radio operation:
  Starts automatic station search.
  ❮ – downwards in frequency
  ❯ – upwards in frequency
- on cassette operation:
  Press briefly: automatic search (APF in display ⑯)
  ❮ – repeating the track
  ❯ – forward wind to next track
  Pressing longer: fast wind
  ❮ – fast rewind
  ❯ – fast forward wind

⑯ **Display**
The following indications are possible:
If the unit has been disconnected from the operating voltage, you will briefly see a 4-digit number (for servicing purposes).
- **in the FM range**
  U ____ VHF waveband
  3 ____ station memory position (1 – 6)
  98.9 _ station frequency (87.5 – 108 MHz)
  ∞ ____ stereo reception
  DX ____ Highest reception sensitivity (nearby and remote stations)

– **in the M (AM) range**

M _____ MW waveband

3 _____ station memory position (1 – 6)

1108 ___ station frequency (528 – 1605 kHz)

– **in the K (AM) range**

K _____ SW waveband

3 _____ station memory position (1 – 6)

6085 ___ station frequency
(5950– 6200 kHz 49-m band)
(7100– 7300 kHz 41-m band)
(9400– 9900 kHz 31-m band)
(11650–12100 kHz 25-m band)

– **in the L (AM) range**

L _____ LW waveband

3 _____ station memory position (1-6)

211 ___ station frequency (150 – 283 kHz)

– **in the RDS (TP) range**

RDS - - SCAN when switching over to another RDS Programme in the RDS-LEARN memory

L * _____ RDS-LEARN memory is automatically allocated or unit searches for any RDS programme

FREE _____ the RDS-LEARN memory is empty or the stored RDS Programmes can no longer be received

L - - _____ unit searches for the same RDS programme

BAYERN 3 __ station abbreviation/ station name

RDS _____ Radio-Data System

TP _____ Traffic Programme (specifically RDS traffic news broadcasts)

– **on cassette operation**

Cr _____ tape type Me, Cr or FeCr

APF _____ automatic search (cassette)

□□ B _____ Dolby B NR

□□ C _____ Dolby C NR

TAPE 1 ___ upper cassette side

TAPE 2 ___ lower cassette side

TAPE FF __ fast forward wind

TAPE FR __ fast rewind

– **on coding**

CODE _____ coding not activated

- - - - _____ unit ready for entry

SAFE _____ coding activated

1 - - - - _____ unit ready for entry (1st attempt)

1658 _____ figures entered (your code number must be positioned here)

⑰ **AM waveband button** (stepping button)
- Switching on and switching between M, K and L range

  M in the display ⑯ = MW (mediumwave)

  K in the display ⑯ = SW (shortwave)

  L in the display ⑯ = LW (longwave)

⑱ **FM waveband button**
- Press for VHF reception:

  U in the display ⑯ = VHF waveband (FM)

⑲ **Station selection buttons 1 – 6**
- Memory positions for RDS programmes:
  6 x RDS (RDS programmes)
  6 x RDS TP (RDS programmes with traffic news broadcasts)
- Memory positions for stations/frequencies:
  6 x U (VHF waveband)
  6 x M (mediumwave)
  6 x K (shortwave)
  6 x L (longwave)
- Theft protection:
  Buttons 1 – 4 are also used to enter the code number.

Please note . . .

These operating instructions assume that your WKC 4870 RDSA has been correctly connected and fitted by your dealer.
If you wish to install the unit yourself, you should first read the **"Installation instructions"** to be found on the pages 94 - 99 and at the end of the booklet.

For the proper function of the unit it is absolutely necessary that the **continuous plus connection** ㉙ of your unit is **permanently connected to the voltage supply**, and the +12V connection ㉖ is connected (see page 99).

Radio-Data System (RDS)

Due to the system employed, a high reception quality (high-quality aerial system) is required for the evaluation of the RDS signals.

Coding – theft protection

After interruption of the continuous plus connection ㉙ (eg: through disconnecting the car battery), it is only possible for you to set the unit into operation again by entering the correct code number.

If you have lost the code number, the unit can only be put into operation again by a GRUNDIG dealer after having proved your ownership and against payment of a fee.

For this reason: never forget to "deactivate" the unit in the case of repair or if you wish to sell it.

Introduction

Switch on and off

with the multifunction control ① (press).

On: display ⑯ comes on.

Off: display ⑯ blank.

Volume

Adjust with multifunction control ①.

Louder: turn clockwise.

Softer: turn anticlockwise.

Relative volumes

of **right- and left-hand loudspeakers**
(stereo balance) can be adjusted by lightly pulling out and turning multifunction control ①.

Left-hand softer: turn clockwise.

Right-hand softer: turn anticlockwise.

The multifunction control ① has a centre lock-in position.

of **front and rear loudspeakers**
can be adjusted with the FADER/SPEED control ②. The control has a centre lock-in position and can be released and retracted by pressing it.

Front loudspeakers softer: turn anticlockwise.

Rear loudspeakers softer: turn clockwise.

⚠ In the case of overheating of the unit, a thermal overload protection circuit switches off the rear loudspeakers.

Switching on for 1 hour

When the car radio is switched off by means of the ignition lock, it is nevertheless possible to switch it on for 1 hour (press multifunction control ①).

Your car radio will be switched off . . .
– if multifunction control ① is pressed or
– automatically after 1 hour.

It is possible to repeatedly switch on the radio.

Tone

can be adjusted with BASS control ③ and TREBLE control ④.

Both controls have a centre lock-in position and can be released and retracted by pressing them.

Adjusting the SCV

SCV = Speed-Controlled Volume:
The SCV facility functions only if a speed-dependent signal is present at the SCV connection ㉕; see "Note on SCV connection".

1. Lock in the LOUD button ⑤.
2. Release the FADER/SPEED control ②.
   Put the control into the SPEED (SCV) position by pulling it out, then turn it fully to the left.
3. With the vehicle standing and the motor running (idling speed), adjust the required volume with the multifunction control ①.

4. For reasons of road traffic safety, the following adjustments should be carried out by the front-seat passenger:
   At the maximum speed mostly driven release the FADER/SPEED control ②. Put the control into the SPEED position by pulling it out, then turn it "very slowly" clockwise until the volume is matched to the ambient noise. For most vehicles, the optimum adjustment is in the last third of the adjustment range.
   Please note that the SCV acts with a certain delay when being adjusted.

Switching off the SCV

Release the FADER/SPEED control ②. Put the control into the SPEED position by pulling it out, then turn it fully to the left.

Radio reception

VHF reception

While the vehicle is moving, the reception conditions are constantly changing. Mountains, buildings and bridges may interfere with the reception. This is especially true if you are a long way from the transmitter.
When stereo broadcasts are being received, the stereo symbol ∞ appears in the display ⑯.
If there is interference (eg: noise) during stereo reception, the unit automatically switches gradually to mono.

SW reception

No matter where you are, travelling in a foreign country or at home, you can receive broadcasts in German (or other languages), using the 4 shortwave bands (49, 41, 31 m and 25 band).

Several German stations transmit programmes in German "round the clock", eg: in the 49 m band (5950-6200 kHz), the Deutsche Welle in Cologne (transmitting frequency: 6075 kHz).

Naturally you can also receive the various stations from anywhere in the world. However, the reception conditions for shortwave must be considered, ie: the reception quality is dependent on the time of day (day or night) and the weather.

Radio-data system (RDS)

The signals of this information system are transmitted in addition to the VHF radio programme.

Programme Service (PS)

Station name or Station abbreviation in display ⑯.
Example: **BBC R1** (British Broadcasting Corporation – Radio 1)
BBC R4 ED (British Broadcasting Corporation – Radio for Education)

Please note that some "RDS programmes with different regional broadcasts" may also have different station names or station abbreviations.

Alternative Frequencies (AF)

Automatic best station selection through stored alternative frequencies of the selected programme. You will always hear the strongest station of a station chain*.

* Station chain: different stations (frequencies) with the same radio programme.

Switching on RDS
See "Range selection" page 85
or "RDS-LEARN memory", page 83.

Selecting RDS programmes
See "Stations search", page 85
or "RDS-LEARN memory", page 83.

Frequency indication (for a short period) instead of station abbreviation or station name. Briefly press RDS button ⑩ or TP button ⑫: display ⑯ shows frequency, range and (if allocated memory) position.

RDS traffic news radio

(TP – Traffic Programme/traffic news radio)

Switch on with TP button ⑫ (press briefly);
RDS and **TP** in display ⑯.

Specifically RDS programmes with traffic news broadcasts will be received.
Reception will only be possible in countries with RDS traffic news radio.

Traffic flashes come through with a certain minimum volume, even if the multifunction control ① is set to a lower volume.
If you wish to hear only traffic flashes, turn the multifunction control ① fully to the left.
The minimum volume can be varied by your dealer (for this see section headed "Installation instructions" on page 94 and figure at end of booklet).

If the set is not already tuned to an RDS programme with traffic news broadcasts, or if the tuned-in station can no longer be received, the station search will start automatically.
During the search:
L * in display ⑯.

If no RDS programme with traffic news broadcasts can be found, a warning tone will sound after approx. 2 minutes. If this happens, a different range should be selected (AM, FM or RDS range).

RDS-LEARN memory

The set is capable of automatically storing up to **26 RDS programmes,** thus the strongest local RDS programmes can be selected at any time.
You will always hear the programme tuned to in best possible quality.
If you leave the broadcasting area of the station tuned to, the set automatically selects another station with the same programme.

Storing stations in memory

i.e. allocating the RDS-LEARN memory to new stations – when the set is used in a different locality (eg: when on holiday) or when the set is first used.

RDS programmes previously stored will be erased.

If you wish to listen to RDS programmes with and without traffic news broadcasts:

- Press the RDS button ⑩ for more than 2 seconds until

  L * appears in display ⑯.

– All RDS programmes (max. 26) capable of reception will be automatically stored.
– After this, you will hear the strongest RDS programme (with or without traffic news broadcasts).

If you wish to listen only to RDS programmes with traffic news broadcasts:

- Press the TP button ⑫ for more than 2 seconds until

  L * appears in display ⑯.

– All RDS programmes (max. 26) capable of reception will be automatically stored.
– After this, you will hear the strongest RDS programme with traffic broadcasts.

Selecting stations stored in the RDS-LEARN memory

The stored RDS programmes can be selected (in sequence) one after another:

- Briefly press the RDS button ⑩ or TP button ⑫

  if another range (eg: AM) is selected:

  RDS or RDS TP appears in display ⑯.

  ∨∧ button ⑬ – selecting in forward direction

  ≙ button ⑭ – selecting in reverse direction

In the display ⑯:

L * The RDS-LEARN memory is being allocated **or** the set searches for any RDS programme.

L -- The set searches for the same RDS programme.

RDS - - SCAN When switching over to select stations in the RDS-LEARN memory.
The set searches for the best station of the adjusted RDS programme on the selected memory position.

FREE The RDS-LEARN memory is empty or the stored RDS programme can no longer be received.

If the tuned-in **RDS programme is already allocated to one of the station buttons** ⑲, you will see the memory position (eg: U 1) in addition.

Notes
- If you stay mainly in the same reception area, it is recommended that the RDS programmes be stored with the station buttons ⑲ (for this see section headed "Storing stations in memory" on page 86).
- If the battery voltage is disconnected, the RDS-LEARN memory will be erased.

Range selection with the appropriate button.
- The range selected is shown in display ⑯.

FM button ⑱:
VHF with and without traffic news broadcasts.
When receiving RDS stations, you will see the station abbreviation instead of the frequency in the display ⑯. Brief frequency indication if FM button ⑱ is pressed briefly.

RDS button ⑩ (press briefly):
VHF programmes with RDS
(with and without RDS traffic news broadcasts) For this see "Radio-data system".

TP button ⑫ (press briefly):
VHF programmes with RDS traffic news broadcasts.
For this see "RDS traffic news radio".

AM button ⑰ (stepping button):
Mediumwave, shortwave and longwave.

Station search

Start with rocker button ⑮:
❮ – downwards in frequency
❯ – upwards in frequency

Station search sensitivity
3-stage automatic sensitivity switch-over:
Briefly press station search rocker button ⑮.
The station search stops ...
- on the 1st traverse (in the whole of the frequency range), only at very strong stations (nearby stations).
- on the 2nd traverse, at all strong stations and
- on the 3rd traverse, at all stations capable of reception (nearby and remote stations);
  DX appears in display ⑯.

If you want to listen to a different station, press the station search rocker button ⑮ again. – On the 2nd and 3rd traverses within approx. 60 seconds, as otherwise the station search sensitivity will be the same as on the 1st traverse.

Selecting highest sensitivity directly
Press the station search rocker ⑮ button until **DX** appears in display ⑯: The station search stops at all station capable of reception (nearby and remote stations).

Automatic frequency comparison
Auto-Compare – **If the station tuned to** by means of the station search **has already been allocated to one of the station buttons** ⑲, display ⑯ will show: Range and memory position (eg: U I or K 5).

Manual tuning

(not possible in the RDS and TP range)

Manual tuning button ∨∧ ⑬ – higher frequencies

Manual tuning button ≙ ⑭ – lower frequencies

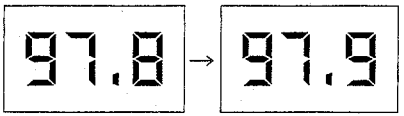
Pressing button briefly
– frequency changes in steps

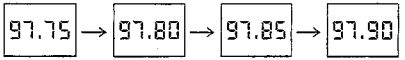
Pressing button longer
– frequency changes rapidly

Only in the FM range (VHF) on stations without RDS:

- Display ⑯ shows the frequency in **0.1** MHz steps.
- Pressing the manual tuning button ∨∧ ⑬ changes the frequency tuned to in **0.05** MHz steps.

Example:

Display ⑯: 

Manual tuning button ∨∧ ⑬: 

After the frequency shown in the display ⑯ changes to the next higher frequency, you must briefly press the manual tuning button ∨∧ ⑬ one more time to ensure that the frequency in the display ⑯ is the same as the frequency tuned to.

Storing stations in memory

using the station buttons ⑲:

Memory positions for RDS programmes

6 × RDS (RDS programmes)
6 × RDS-TP (RDS programmes with traffic news broadcasts)

Memory positions for stations/frequencies

6 × U (VHF waveband)
6 × M (mediumwave)
6 × K (shortwave)
6 × L (longwave)

- Select the range (press buttons briefly) with RDS button ⑩, TP button ⑫, FM button ⑱ or AM button ⑰.
- Tune in station/frequency using
  – manual tuning buttons ∨∧ ⑬, ≙ ⑭ (not possible in the RDS and TP range) or
  – station search rocker button ❮❯ ⑮ or
  – RDS-LEARN memory.
- Store the stations tuned to with the station buttons ⑲.
  Press the desired station button and hold until the station tuned to becomes audible again.
  – The station is stored in the memory; it replaces any station previously allocated to the button in the same range.

If the supply voltage is disconnected, the contents of the memory remain intact.

Selecting stored stations

with the station buttons ⑲

- Select the range (press buttons briefly) with RDS button ⑩, TP button ⑫, FM button ⑱ or AM button ⑰.

– After pressing one of these buttons, the last station tuned to in this waveband will be heard (last-station memory).

- Press the appropriate station button ⑲.

– The display ⑯ will show the station abbreviation or the frequency and the number of the station button selected.

Cassette operation

Tape cassettes are subject to high thermal stress when used in a car radio.
You should therefore only use good-quality C 60 and C 90 cassettes.

- **Tape type (Cr/CD) button** ⑥
  for switching between:
  – **Me** ___ metal tape (IEC type IV)
  Cr___ chromium dioxide tape (IEC type II)
  FeCr___ ferrochrome tape (IEC type III)
  Cr in display ⑯
  and
  – **Fe**___ ferric (iron oxide) tape (IEC type I)

- **Dolby NR button** (DD B/C) ⑦ (stepping button)
  for switching from:
  Dolby NR switched off
  → Dolby B NR (DD B in the display ⑯).
  → Dolby C NR (DD C in the display ⑯).
  → Dolby NR switched off, etc.

  Dolby noise reduction manufactured under licence from Dolby Laboratories Licensing Corporation. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Playback

- Push cassette into cassette compartment ⑨ with the open edge to the right until it clicks into position.

– The unit will now switch to cassette operation.

- To change the tape direction, press the reverse button ∨∧ ⑬ (reverse operation). The tape direction is automatically reversed at the end of the tape (auto-reverse operation).

– Tape direction TAPE 1 (upper cassette side) or TAPE 2 (lower cassette side) appears in the display ⑯.

Fast wind

Press fast wind rocker button ❮ ❯ ⑮ longer:
APF in the display ⑯ goes out.

❮ – fast rewind

❯ – fast forward wind

Fast forward wind or rewind is terminated
– by briefly pressing the reverse button ∨∧ ⑬ or
– automatically at the end of the tape.

Automatic search (APF) (cassette)

Automatically skipping or repeating a track (**APF** = **A**utomatic **P**rogramme **F**inder).

For the search facility to function reliably pauses (gaps in recording without announcements, etc.) of at least 3 seconds between each individual track are required.

Tracks with very soft sections (eg: classical music) are not suitable as the automatic search system may mistake them for separating gaps.

Automatic search (APF) is started
by briefly pressing the fast wind rocker button ❮ ❯ ⑮:

❮ – repeating the track

❯ – forward skipping to the next track

APF appears in display ⑯ during search.

Automatic search (APF) is stopped
– prematurely by briefly pressing the reverse button ∨∧ ⑬ **or**
– automatically at the beginning or end of a track.

RDS traffic flashes

These can be heard during cassette operation if the "RDS traffic radio" is switched on.
This is switched on with the TP button ⑫; **TP** appears in display ⑯ and the indicator in the TP button lights up.
Traffic flashes can only be received in countries with RDS traffic news broadcasts.

During RDS traffic flash the tape will stop running until the flash is complete.

If no traffic news station can be received, a warning tone will sound. The warning tone can be muted by selecting another range (AM, FM or RDS range).

Standby

- Press the standby button ⏻ ⑪.

– Cassette operation will be interrupted.
The unit will switch to radio operation for approx. 3 seconds. During this time the buttons are out of function. After this time the unit will switch back to cassette operation.
If the station search is in operation, the standby button ⏻ ⑪ will have no function.

Cassette ejection

- Press the eject button ⏏ ⑭.

– The cassette is automatically ejected and the unit switches to radio operation.

CD operation

No cassette must be locked in the cassette compartment ⑨.

With a CD player connected to socket ㉑, you can play back CD discs via the car radio.

- Press the **Cr/CD** button ⑥; **CD** appears in the display ⑯.

RDS traffic flashes

These can be heard during CD operation if "RDS traffic radio" is switched on.

This is switched on with the TP button ⑫; **TP** appears in display ⑯ and the indicator in the TP button lights up.

Traffic flashes can only be received in countries with RDS traffic news broadcasts.

If a traffic news station is tuned in, the unit automatically switches from CD playback to radio operation in the case of traffic flash announcements.

If no RDS traffic news station can be received, a warning tone will sound.

The warning tone can be muted by selecting another range (AM, FM or RDS range).

Standby

- Press the standby button ⏻ ⑪.

– CD operation will be interrupted.
The unit will switch to radio operation for approx. 3 seconds. During this time, no operation will be possible.
After this time the unit will switch back to CD operation. If the station search is in operation, the standby button ⏻ ⑪ will have no function.

CAR AUDIO CARD

The document for your set

It contains the equipment type, the serial number and the code number.

The serial number is identical with the number punched into the set.

The CAR AUDIO CARD facilitates criminal investigation by the police in the case of theft of the unit and gives evidence of ownership for faster settlement of the insurance claim.

Keep the document in a safe place, out of reach of unauthorised persons.

Coding

You can protect your car radio through coding (unit is electronically locked in case of theft).

To show that the car radio is protected, attach the supplied DSS labels at a good visible place of your car.

In the case of theft, the protected car radio is without any worth for the thief. Only you can put the unit into operation again.

For the function of the unit it is absolutely necessary that the **main plus connection** ㉙ of your unit (car terminal 30 = permanent plus connection) is **permanently supplied with voltage**, and the +12V connection ㉖ is connected (see page 99).

If the unit is separated from the voltage supply, eg: in the case of theft or when disconnecting the car battery, the unit is electronically locked.

The coding of the unit has not been activated at the factory.

The theft protection facility becomes effective only after "activating" the unit.

If you wish to cancel the theft protection, eg: when selling the unit, you must "deactivate" the unit.

Activation

i.e. activating the theft protection facility.

1. Radio plays.
2. Press the FM button ⑱ for more than 3 seconds:
   C O D E appears in display ⑯.
   After approx. 3 seconds:
   - - - - appears in display ⑯.
3. Enter the code number (see CAR AUDIO CARD) **by repeatedly pressing** the station buttons 1 – 4 ⑲.

Example: 1658	Station buttons ⑲	Display ⑯
For 1st figure:	press button 1 twice	1 - - -
for 2nd figure:	press button 2 seven times	1 6 - -
for 3rd figure:	press button 3 six times	1 6 5 -
for 4th figure:	press button 4 nine times	1 6 5 8

Example: 703	Station buttons ⑲	Display ⑯
For 1st figure:	press button 1 once	0 - - -
for 2nd figure:	press button 2 eight times	0 7 - -
for 3rd figure:	press button 3 once	0 7 0 -
for 4th figure:	press button 4 four times	0 7 0 3

   In case of wrong entry, overwrite code number, i.e. re-enter complete code number.
4. Confirm code number by pressing the FM button ⑱ for more than 3 seconds:
   S A F E appears in the display ⑯.
   After approx. 3 seconds:
   Radio plays. The unit is protected.

Coding activated?

1. Radio plays.
2. Press the FM button ⑱ for more than 3 seconds:

a) Coding activated if

SAFE is shown in display ⑯.

After approx. 3 seconds:

1 ---- appears in display ⑯.

Switch unit OFF/ON: radio plays.

b) Coding not activated if

CODE is shown in display ⑯.

After approx. 3 seconds:

---- appears in display ⑯.

Switch unit OFF/ON: Radio plays

Putting unit into operation again

Unit electronically protected, after being disconnected from the supply voltage.

1. Connect unit to supply voltage (car battery).
2. Code number

The code number may be found on the CAR AUDIO CARD (document).

To ensure that the unit is not put into operation again by "trial", there are waiting times between the individual attempts. After the 6th attempt, it is recommended that the unit is put into operation again by an authorised dealer.

Attempt	*Display shows	Approx. waiting time
1	1	
2	2	21 secs.
3	3	1.5 mins.
4	4	5.5 mins.
5	5	22 mins.
6	6	1.5 hrs.
7	7	6 hrs.
8	8	24 hrs.

The table shows the waiting times **between** the individual attempts. During these times the unit is locked for all entries ("SAFE" shown in display ⑯). After the 7th attempt there is always a waiting time of 24 hours.

*The attempt number 1 to 8 is shown at the left of the code number.

3. Switch on unit
with mutlifunction control ① (press):
SAFE appears in display ⑯.
After approx. 3 seconds:
1 ---- appears in display ⑯.

4. Enter code number **by repeatedly pressing the station buttons** ⑲:

Example: 1658	Station button ⑲	Display ⑯
For 1st figure:	press button 1 twice	1 1 - - -
for 2nd figure:	press button 2 seven times	1 1 6 - -
for 3rd figure:	press button 3 six times	1 1 6 5 -
for 4th figure:	press button 4 nine times	1 1 6 5 8

Example: 703	Station button ⑲	Display ⑯
For 1st figure:	press button 1 once	1 0 - - -
for 2nd figure:	press button 2 eight times	1 0 7 - -
for 3rd figure:	press button 3 once	1 0 7 0 -
for 4th figure:	press button 4 four times	1 0 7 0 3

In the case of wrong entry, overwrite code number, i.e. re-enter complete code number.

5. Confirm code number
Press the FM button ⑱ for more than 3 seconds:
SAFE appears in display ⑯.
After approx. 3 seconds:
Radio ready for operation.

Wrong code number has been entered:
SAFE shown in display ⑯.
Radio does not play. Start once more.
Observe the waiting times **between** the attempts.
After the waiting time:
2 is shown in display ⑯; – start with the 2nd attempt.

Deactivation

i.e. cancelling the theft protection.

1. Radio plays.
2. Press the FM button ⑱ for more than 3 seconds:
SAFE appears in display ⑯.
After approx. 3 seconds:
1 ---- appears in display ⑯.
3. Enter code number (see CAR AUDIO CARD) **by repeatedly pressing** the station buttons ⑲.

Example: 1658	Station buttons ⑲	Display ⑯
For 1st figure:	press button 1 twice	1 1 - - -
for 2nd figure:	press button 2 seven times	1 1 6 - -
for 3rd figure:	press button 3 six times	1 1 6 5 -
for 4th figure:	press button 4 nine times	1 1 6 5 8

Example: 703	Station buttons ⑲	Display ⑯
For 1st figure:	press button 1 once	1 0 - - -
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for 3rd figure:	press button 3 once	1 0 7 0 -
for 4th figure:	press button 4 four times	1 0 7 0 3

In the case of wrong entry, overwrite code number, i.e. re-enter complete code number.

4. Confirm code number
   Press the FM button ⑱ for more than 3 seconds:
   CODE appears in display ⑯.
   After approx. 3 seconds:
   Radio plays.

   Wrong code number has been entered:
   SAFE shown in display ⑯.
   Radio does not play.
   Start once again. Observe the waiting times **between** the attempts. After the waiting time:
   2 is shown in display ⑯; – start with the 2nd attempt.

Removable control panel

In addition to the "coding", it is possible to remove and take along the control panel of the unit, thus the unit is without any worth for the thief. Store the removed control panel in its case and protect it against moisture.
If you should lose the control panel, you can acquire a new one against a fee after furnishing evidence of your ownership (eg: CAR AUDIO CARD). Please consult your authorised dealer.

Removing the control panel

(see Fig. on page 2)
Hold the control panel and push the lock ⑧ to the left.
The control panel is unlocked and can be removed.

Fitting the control panel

(see Fig. on page 2)
Insert the control panel in the latches (at the right in the instrument cutout).
Press onto the left-hand side of the control until it locks into position.

DSS label

Double **S**ecurity **S**ystem through **coding** and **removable control panel.**
The DDS labels affixed to your vehicle indicate that your car radio is protected against theft.

Care and Maintenance

The unit has been designed throughout to guarantee maintenance-free operation over a long period. However, if a malfunction should occur, consult your dealer.

In the Federal Republic of Germany and in West Berlin, GRUNDIG car radios can be exchanged by your dealer on request in the event of a defect occuring for a factory tested exchange unit.

Prerequisite for the participation in this exchange system by your dealer is the presentation of the properly completed ident document and the intact guarantee seal.

Cassettes should not be exposed to elevated temperatures and should be put back into their containers after use.

The front trim should only be cleaned with a soft cloth which picks up dust. Polishing and cleaning agents may damage the surface of the trim.

The sound head must be free from tape abrasion particles to avoid losses in the treble reproduction. You should therefore clean the sound head with the GRUNDIG cleaning cassette 461 after every 50 to 100 hours the cassette section is in use.

Installation instructions

Installation and removal is described at the end of the booklet.

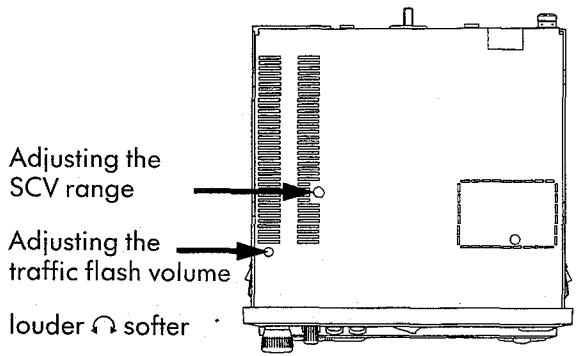
The parts required for fitting and the accessories available are indicated in the GRUNDIG car radio accessories list.

Additional power amplifiers can be connected to the LINE output ㉓.
The GRUNDIG power amplifier PA 200 must be connected via the adapter 413 to the loudspeaker outputs ㉒.

Before inserting the unit in the mounting frame, please note the following:

1) The continuous plus connection ㉙ must constantly be supplied with voltage.
2) Adjusting the basic volume for RDS traffic flashes:
   – The unit must be completely connected and ready for operation.

– Adjust the basic volume during a traffic flash (TP in the display ⑯).
The control is accessible through an opening in the cabinet cover using a small screwdriver (see fig.).



3) SCV connection
– The way the unit is connected is dependent on the type of vehicle.
Information about this can be obtained from your dealer; see also "Note on SCV connection".

Note on SCV connection

The SCV requires a speed-dependent signal which is already present on cars fitted with an electronic speedometer, computer, automatic speed control, etc.
Normally, this signal can be picked up at the rear of the speedometer. If your car is not yet equipped with an impulse generator, it is possible in most cases to additionally fit such a generator.
To find out whether your vehicle is suitable for the SCV connection, consult your dealer.

Your unit is suited for the connection of all types of impulse generators.

The SCV should be connected with the SCV lead supplied. If your vehicle has already been fitted with an impulse generator, and this is electrically connected to chassis, you will only have to interconnect the signal-carrying lead with the SCV connection.

Important

If the vehicle is is provided with an impulse generator and this is used for other functions, ensure that the signal carrying impulse generator lead is not short-circuited against the vehicle chassis when making the SCV connection.

Adjusting the SCV range

Use switch at top of unit for adjusting the sensitivity to adapt the SCV to the speed pulse generator of your car (see fig., p. 95).

In switch position 1 (not pressed), the SCV is adapted to an impulse number (K-number) of 3600 impulses per kilometre.

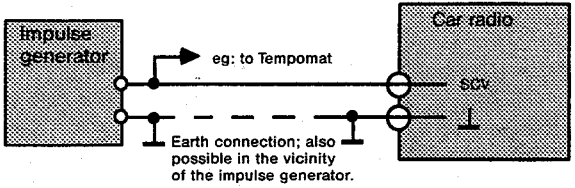
In switch position 2 (pressed), the SCV is adapted to an impulse number (K-number) of 7200 impulses per kilometre.

If the impulse number of your car deviates very much from the values given above (approx. 3600 or 7200), then always use the next lower switch position.

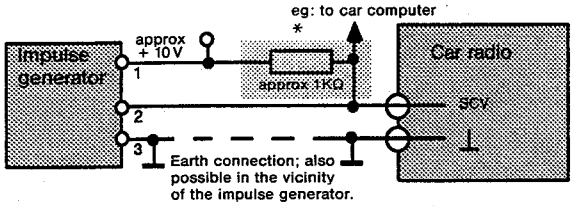
In most cases, the control ② (pull out and turn knob) permits to compensate for the deviations.

Information about the impulse number (K-number) of your car can be obtained from your car dealer.

1. Inductive generator (mounting directly at the speedometer)

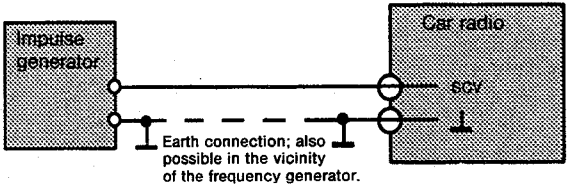


2. Hall generator (mounting directly at the speedometer)



* Resistor required only if not present in Hall generator.

3. Mechanical frequency generator (inductive impulse generator; mounting between speedometer and speedometer drive)



Connections

⑳ **Aerial**
If required, use the supplied aerial adapter.
Fix the aerial adapter or aerial cable in the plastic holder ㉛; see fig. on page 3.

㉑ **CD player connection**
(3.5 mm stereo jack plug)

㉒ **Loudspeakers** (DIN 41 529)
RR ___ right-hand rear loudspeaker
RL ___ left-hand rear loudspeaker
FR ___ right-hand front loudspeaker
FL ___ left-hand front loudspeaker
Maximum output power into 4-ohm loudspeakers:
sine, DIN 45 324 _____ 4 ×20W
peak _____ 4 × 40W
Connecting possibility for GRUNDIG power amplifier PA 200 via adapter 413.

㉓ **LINE output**
(6 × contact blades, 2.8 mm)
For connecting a power amplifier.

㉔ **Fuse compartment**
Precision fuse type 10 A (slow-blow) behind the cover

㉕ **SCV connection**
(2.8 mm contact blade)

㉖ **+12V terminal** (see next page)

㉗ **+12V drive line** (max. 1 A)
(2.8mm contact blade)
Drive voltage for automatic aerial (extension and retraction), power amplifier (switching on/off) etc., and supply voltage for aerial amplifier.

㉘ **Illumination for controls**
With the unit switched off, supplied via the connection for the dashboard illumination.
The brightness is dependent on the adjustment of the dashboard illumination. With the unit switched on, the brightness is constant and does not depend on the dashboard illumination.

㉙ **+12V terminal** (see next page)

㉚ **– terminal** (chassis)
(6.3mm contact blade)

㉛ **Plastic holder**
For fixing the aerial adapter or the aerial cable.

Note on + 12 V connection ㉙

Because of the high output power, the car radio must be connected directly to the battery using the supplied connecting cables and fuse holder.

For reasons of safety, it is absolutely necessary that the connecting cable and the fuse holder (with 16 amp fuse) be used.

The fuse holder (short cable) must be sited in the immediate vicinity of the battery; see installation drawing at the end of the booklet.

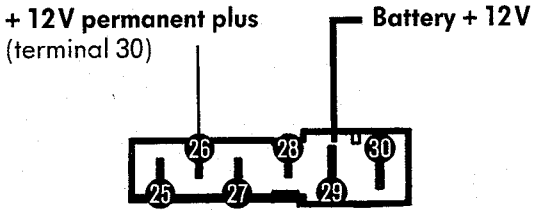
㉖ and ㉙ + 12V connections

㉖ 2.8mm contact blade

㉙ 6.3mm contact blade

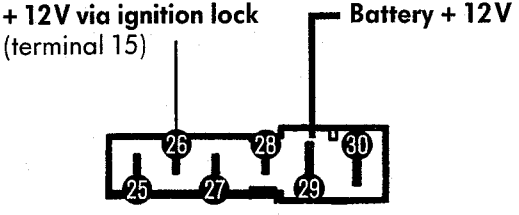
Example 1:

Connection for vehicles **without + 12V via ignition lock** (terminal 15);
eg: Audi, Opel, VW:
Connect via cable supplied.



Example 2:

Connection for vehicles **with + 12V via ignition lock** (terminal 15);
eg: BMW, Ford, Mercedes:
Connect via cable supplied.



E. & O.E.
Subject to technical alterations and alterations in styling.

Mounting and Removal of Car Radio

Insert the mounting frame **b** in the instrument cut-out **a**.
Bend the tabs **c** behind the instrument cut-out as required (depending on the type of vehicle).
Removing the car radio from the mounting frame **b** with the two bows **d**. Insert the bows according to the drawing, lock the bows in and press outwards. Pull out the car radio.

Montage et démontage de l'autoradio

Insérer le cadre de montage **b** dans l'orifice de montage **a** de l'appareil.
Plier les languettes **c**, selon le besoin, derrière l'orifice de montage (d'après le type de véhicule).
Les deux cintres **d** permettent d'extraire l'autoradio du cadre de montage **b**. Mettre les cintres selon le croquis et les faire encliqueter; les écarter ensuite vers l'extérieur pour retirer l'autoradio.

Montaggio e smontaggio dell'autoradio

Inserire la cornice di montaggio **b** nel ritaglio per l'autoradio **a**.
Piegare all'occorrenza le linguette **c** dietro il ritaglio per l'autoradio (a seconda del tipo di autovettura).
Estrarre l'autoradio dalla cornice di montaggio **b** con i due archetti **d**. Inserire gli archetti come mostra lo schizzo fino a bloccarli e premerli verso l'esterno. Si ha così l'estrazione dell'autoradio.

In- en uitbouw van het apparaat

Inbouwraam **b** in de opening voor het apparaat plaatsen.
De lipjes **c** achter de apparaat-opening verbuigen, afhankelijk van het type auto.
Het uitnemen van het apparaat geschiedt door beide beugels **d** te gebruiken. De beugels volgens tekening inschuiven en naar buiten drukken. Vervolgens het apparaat er uit trekken.

Montaje y desmontaje del autorradio

Insertar el marco de montaje **b** en el orificio del alojamento **a** del vehículo.
Doblar las lengüetas **c** detrás del orificio, según exija el tipo de vehículo.
Las dos bridas **d** permiten extraer el aparato del marco de montaje **b**. Para ello introducirlas de acuerdo con el croquis, hacer que enganchen, y presionando hacia el exterior sacer el aparato.

Montagem e desmontagem do auto-rádio

Introduza a caixa de montagem **b** na abertura **a** do painel do automóvel, destinada ao aparelho. Dobre as palhetas **c**, por trás da abertura de montagem (de acordo com o tipo de automóvel).
Os dois ganchos **d** permitem retirar o auto-rádio da caixa de montagem **b**. Para tal, introduza os ganchos de acordo com o desenho, até estes encaixarem, e puxe para fora, para retirar o auto-rádio.

Inn- og utmontering av bilradio

Innbyggingsramme **b** settes på plass i dashbordets utsparring **a**.
Låsestykker **c** bendes slik at ramme **b** sitter fast.
Utmontering av apparat skjer ved å skyve bøylene **d** inn i apparatets front.
Med bøylene på plass kan apparatet nå tas ut.

Laitteen asentaminen ja irroittaminen

Sovita ensin asennuskehys **b** kojelaudassa olevaan aukkoon **a**.
Taivuta sopivalla kohdalla olevat asennuskehyksen kiinnitysliuskat **c** kojelaudan takapuolelle.
Laite saadaan irrotettua asennuskehyksestä **b** kah den U-muotoon taivutetun metallipuikon **d** avulla. Työnnä puikot laitteen etulevyssä olevista rei'ista sisään niin, että ne lukkiutuvat. Väänä puikkoja hieman ulos sivuille päin samalla, kun vedät laitteen pois kehyksestä.

Ein-/Ausbau des Autoradios

Einbaurahmen **b** in den Geräte-Ausschnitt **a** einsetzen.
Schränklappen **c** hinter dem Geräte-Ausschnitt nach Bedarf aufbiegen (je nach Fahrzeugtyp).
Herausnehmen des Autoradios aus dem Einbaurahmen **b** mit den beiden Bügeln **d**.
Bügel nach Skizze einsetzen, einrasten und nach außen drücken.
Autoradio herausziehen.